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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,618	10/15/2004	Gottfried Reiter	450117-05347	4047

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EXAMINER

JONES, CRYSTAL L

ART UNIT	PAPER NUMBER
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2627

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,618	REITER, GOTTFRIED	
	Examiner	Art Unit	
	Crystal Jones	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 23 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 12-14 and 23 is/are rejected.
- 7) ☒ Claim(s) 8-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in the reply filed on May 8, 2006 is acknowledged.

The traversal is on the ground(s) that the claims were incorrectly grouped as a subcombinations useable together rather than as distinct species. This is not found persuasive because the claims are directed to two subcombinations of one invention: a method/device to produce a copy protected record carrier and a method/device to produce a record carrier copied from the copy protected record carrier. These are not two species of one invention because BOTH subcombinations are not modifications of ONE invention of:

- a) producing a copy protected record carrier, or
- b) producing a copy of a copy protected record carrier.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

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- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.** The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 12 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 12 is drawn to a "program" *per se* as recited in the preamble and as such is non-statutory subject matter. See MPEP § 2106.IV.B.1.a. Data structures not claimed as embodied in computer readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure *per se* held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention, which permit the data structure's functionality to be realized. In contrast, a claimed computer readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory. Similarly, computer programs claimed as computer listings *per se*, i.e., the descriptions or expressions of the programs

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are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer, which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-7, 13, 14, 23 are rejected under 35 U.S.C. 102(b) and 35 U.S.C. 102(e) as being anticipated by Heylen (U.S. Publication 2002/0076046).

Regarding claim 1, Heylen discloses a method to produce a copy protected record carrier for digital data, characterized by determining at least one predetermined repetitive bit pattern which encodes into channel bits having an accumulated digital sum value that exceeds a first predetermined limit and that is below a second predetermined limit ([0085] lines 13-19; DSV exceeds an ideal zero level ([0065] and [0084]) but is below a second level to ensure readability of replica discs from the master), replacing at least one part of the digital data to be recorded by the at least one

predetermined repetitive bit pattern and/or inserting the at least one predetermined repetitive bit pattern into at least one part of the digital data to be recorded [0085], and transferring said digital data including the at least one replaced and/or inserted part onto said record carrier by a mastering process so that said accumulated digital sum value which exceeds said first predetermined limit and is below said second predetermined limit is achieved in said at least one replaced and/or inserted part [0085].

Regarding claim 2, Heylen discloses a method according to claim 1, characterized in that said predetermined repetitive bit pattern is selected so that an abnormal writing beam deviation from the ideal position of a writing beam of a record carrier recording device for recordable record carriers which writing beam deviation is big enough to ensure that a writing process will be aborted or disturbed ([0088] and [0089]).

Regarding claim 3, Heylen discloses a method according to claim 1, characterized in that said predetermined repetitive bit pattern is selected so that an abnormal reading beam deviation from the ideal position of a reading beam of a record carrier reading device which reads a copy of the copy protected record carrier recorded on a recordable record carrier which reading beam deviation is big enough to ensure that a reading process will be aborted or disturbed ([0088] and [0089]).

Regarding claim 4, Heylen discloses a method according to claim 1, characterized in that said predetermined repetitive bit pattern is selected so that an abnormal writing beam deviation from the ideal position of a writing beam of a record carrier recording device for recordable record carriers and is selected so that a abnormal reading beam deviation from the ideal position of a reading beam of a record carrier reading device

which reads a copy of the copy protected record carrier recorded on a recordable record carrier wherein the combined effect of writing beam deviation and reading beam deviation is big enough to ensure that a reading process will be aborted or disturbed ([0089] lines 15-18; a read error is caused by a servo error signal stemming from a beam deviation).

Regarding claim 5, Heylen discloses a method according to claim 1, characterized in that said predetermined repetitive bit pattern is selected so that an abnormal reading beam deviation from the ideal position of the reading beam of a record carrier reading device which reads the copy protected record carrier which deviation is small enough to ensure a readability of the copy protected record carrier ([0085] lines 13-19).

Regarding claim 6, Heylen discloses a method according to claim 1, characterized in that said predetermined repetitive bit pattern is selected so that merge bits are predefined and therefore not changeable by the recording electronic of a recorder due to design rules of the digital data content of the record carrier [0069].

Regarding claim 7, Heylen discloses a method according to claim 1, characterized in that said predetermined repetitive bit pattern is selected so that the signal corresponding to the digital data shows a certain positive or negative digital sum value within a predefined time [0064-0065].

Regarding claim 13, Heylen discloses a device to produce a record carrier with copy protection, characterized by a first unit (element 44, encoder of Fig. 5; [0085] for replacing at least one part of the digital data to be recorded by at least one predetermined repetitive bit pattern and/or for inserting at least one predetermined repetitive bit pattern into at least one part of the digital data to be recorded, wherein

said repetitive bit pattern encodes into channel bits having an accumulated digital sum value that exceeds a first predetermined limit and that is below a second predetermined limit ([0085] lines 13-19; DSV exceeds an ideal zero level ([0065] and [0084]) but is below a second level to ensure readability of replica discs from the master), and a second unit (element 50, glass master of Fig. 5; [0085]) for transferring said digital data including the at least one replaced and/or inserted part to a record carrier production unit which produces said record carrier by a mastering process so that said accumulated digital sum value that exceeds a first predetermined limit and is below a second predetermined limit is achieved in said at least one replaced and/or inserted part.

Regarding claim 14, Heylen discloses a copy protected record carrier, characterized by at least one part comprising at least one predetermined repetitive bit pattern which encodes into channel bits having an accumulated digital sum value that exceeds a first predetermined limit and is below a second predetermined limit [0085].

Regarding claim 23, Heylen discloses a method for making a copy protected carrier (Fig. 5) having at least one part with at least one predetermined repetitive bit pattern that encodes into channel bits having an accumulated digital sum value that exceeds a first predetermined limit and is below a second predetermined limit ([0085] lines 13-19; DSV exceeds an ideal zero level ([0065] and [0084]) but is below a second level to ensure readability of replica discs from the master), comprising steps of: determining at least one predetermined repetitive bit pattern which encodes into channel bits having an accumulated digital sum value that exceeds a first predetermined limit and that is below a second predetermined limit, replacing at least one part of the digital data to be recorded by the at least one predetermined repetitive bit pattern

and/or inserting the at least one predetermined repetitive bit pattern into at least one part of the digital data to be recorded, and transferring said digital data including the at least one replaced and/or inserted part onto said record carrier by a mastering process so that said accumulated digital sum value which exceeds said first predetermined limit and is below said second predetermined limit is achieved in said at least one replaced and/or inserted part [0085].

Allowable Subject Matter

6. Claims 8-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 8-10, no reference alone or in combination discloses the method of claim 1, characterized in that the repetitive bit pattern is selected to produce analog audio signals of specific DC values, frequencies and/or amplitudes.

Regarding claim 11, no reference alone or in combination discloses the method of claim 1, characterized in that a ramp signal is added to ensure smooth transitioning to/from the repetitive bit pattern.

Claim 12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 101, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hogan (U.S. Patent 5,699,434). Aida et al. (U.S. Patent 7,030,788).

Hogan discloses a copy protection method in which a non-optimal choice of channel bits are produced by an encoder so that a DSV is not large but causes a DSV to increase when re-encoded for reproduction.

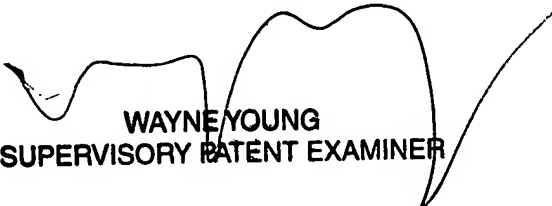
Aida et al. disclose a copy-protected medium, method, and apparatus to produce a copy-protected medium in which a special data pattern causes a DSV to increase when re-encoded for reproduction.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal Jones whose telephone number is 571-272-2849. The examiner can normally be reached on Monday through Friday, 8:30 a.m. to 6 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CJ


WAYNE YOUNG
SUPERVISORY PATENT EXAMINER